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Embodied Transformation: A Review of Play and Dance Movement Therapy for
Complex Post-Traumatic Stress Disorder

Capstone Thesis

Lesley University

May 5, 2020

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Dance/Movement Therapy

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Abstract

This thesis explores the potential role of play and playfulness in dance movement therapy (DMT) for the treatment of complex post-traumatic stress disorder (CPTSD), which results from exposure to complex trauma. As its name suggests, CPTSD symptoms can be more severe than that of PTSD, and the prevalence of CPTSD is estimated at 3.8% of the U.S. population (Cloitre et al., 2019). Given these factors, this mental health issue warrants further research and treatment support. Towards this end, a critical review of the literature on the topics of complex trauma/CPTSD, play, and DMT has been conducted. Based on a synthesis of the findings, the benefits of integrating play and DMT for CPTSD treatment are presented, and initial recommendations for how to integrate the therapeutic use of play with a phased model of DMT are made. Specifically, play offers the potential for the transformation of self and promotes increased adaptability, both of which complement DMT as an embodied modality. Together, DMT and play are well suited to tackle the core issues of CPTSD.

Introduction

This critical literature review explores the potential role of therapeutic play in dance movement therapy (DMT) as it relates to the treatment of complex post-traumatic stress disorder (CPTSD). CPTSD is rooted in the exposure to complex trauma, which is defined by long-term or multiple experiences of interpersonal trauma during one's developmental years (Ford & Courtois, 2009). An estimated 10 to 14% of children in the U.S. are exposed to this type of trauma (Ford & Courtois, 2009). The nature of such prolonged and severe trauma disrupts the course of one's personality development and impairs one's capacity to trust (Ford & Courtois, 2009). Symptoms of CPTSD include emotional and somatic dysregulation, dissociation, identity disturbance, and attachment issues (Ford & Courtois, 2009). The negative impact of complex trauma has also been linked with a wide range of mental health issues later in life, including anxiety (Heim & Nemeroff, 2001), depression (Hovens et al., 2010), personality disorders (McLean and Gallop, 2003), and self-destructive behavior (Briere, Godbout, & Dias, 2015; Ouimette & Brown, 2003).

One critical development in the understanding of trauma is the move towards a somatic conceptualization that endorses body-oriented psychotherapeutic treatments (Caldwell, 1996; Herman, 1992; Ogden, Minton, & Pain, 2006). DMT is an integrative approach that works at the interface of the body, mind, and brain (Cozolino, 2010). Through interventions such as embodied attunement, kinesthetic mirroring, and somatic co-regulation, DMT supports the processing and integration of trauma (Koch & Harvey, 2012; Pierce, 2014; Weltman, 1986). A meta-synthesis of nine qualitative studies found that DMT addresses trauma by mending the mind-body connection, making sense and meaning of the traumatic experience, supporting nonverbal expression, cultivating safe and embodied connections, and establishing a healthy relationship to

one's body (Levine & Land, 2016). However, further treatment development and research is needed to establish the efficacy of DMT in the treatment of CPTSD (Levine & Land, 2016).

The concept of play is widely recognized, but difficult to define. Play is an innate human quality and behavior that crosses disciplinary divides (Bergen, 2015; Burghardt, 2010). Within the context of Western psychotherapy, play has been used as a therapeutic tool since the early days of psychoanalysis (Axline, 1947; Freud, 1909, 1928; Klein, 1932; Winnicott, 1991). From these roots, play has been developed into its own distinct therapeutic modality (Hug-Hellmuth, 1921), as well as incorporated into other therapies (e.g., drama therapies, sandplay; Blatner, 2003; Johnson, Smith, & James, 2003; Landy, 2003; Mitchell & Friedman, 2003; Olson-Morrison, 2017; Ward-Wimmer, 2003). As a gateway to imagination, creativity, and flexibility, I believe play has much to contribute to the practice of DMT as a treatment for CPTSD.

The motivation for this topic comes from my desire to further the development of DMT. As a Chinese American from a low socioeconomic background, I also feel deeply invested in the treatment of CPTSD, given the prevalence of complex trauma in marginalized populations. In exploring how play can contribute to the DMT treatment of CPTSD, this thesis will begin with a critical review of existing literature on complex trauma, in order to understand its neurophysiological basis, impact on mental health, diagnostic status, prevalence, and standard treatments. A critical review of DMT literature will follow, examining underlying principles of the practice and treatment of trauma. Next, this thesis will investigate the nature of play, how it is impacted by trauma, as well as its role in human functioning and trauma treatment. Finally, an analysis of how play may contribute to the practice of DMT as it relates to the treatment of CPTSD will be presented.

Complex Trauma

Neurophysiological Basis of Trauma

Trauma is the experience of a threatening event that overwhelms a person's capacity to cope, thus creating a sense of helplessness (van der Kolk, 2006). It follows that what is experienced as traumatic varies according to one's ability to cope at that point in time. It is now understood that when the person is overwhelmed on a survival level, they may undergo enduring physiological, psychological, and neurological changes (Rothschild, 2000; Scaer, 2007; Schore, 2009; van der Kolk, 2006). Neuroimaging studies have found that sensory reminders of traumatic experience trigger intense emotions while reducing the brain's capacity for verbal expression (Hull, 2002; Lindauer et al., 2004). These intense emotions (e.g., fear, anger, and sadness) then diminish the brain's ability to direct effective behavioral response (Damasio, 2000). Without the choice of how to respond or the ability to articulate their experience, it is as if those with post-traumatic stress disorder (PTSD) are caught in a loop of their traumatic experience although the original threat has passed (Kardiner, 1941).

The specific traumatic response varies across individuals. Some individuals with PTSD are prone to intense fight/flight responses in everyday situations that reflect a chronic state of hyperarousal of the sympathetic nervous system (Kozlowska, Walker, McLean, & Carrive, 2015). The instinct to fight or escape was necessary at the time of the traumatic experience but often remains overly reactive after the threat has ceased (van der Kolk, 2006). Physiological evidence of such hyperarousal can be seen in the increased activity of epinephrine and norepinephrine, neurotransmitters involved in stress response, in both children and adults exposed to trauma (Cohen, Perel, De Bellis, Friedman, & Putnam, 2002).

In contrast, other individuals with PTSD present with physical immobilization via parasympathetic activation when triggered by reminders of their trauma (Kozlowska, et al.,

2015; van der Kolk, 2006). Neurological evidence of the freeze response can be seen in the reduced activity of the corpus striatum, which controls motor functions (Lindauer et al., 2004). The freeze state has also been associated with experiences of dissociation, including both depersonalization and derealization (Kozłowska, et al., 2015). This disconnection from one's experience may be a last resort when neither fight nor flight is accessible. While the fight/flight and freeze mechanisms may be viewed as opposite responses, the two are not mutually exclusive within one individual (Kozłowska, et al., 2015). One PTSD study found that a third of its subjects exhibited both responses when exposed to triggering images (Lanius & Hopper, 2018), thus demonstrating the complexity of the nervous system's response to trauma.

Given the above responses that are conditioned as a result of trauma, it is unsurprising that individuals exposed to trauma experience a reduced capacity in identifying and appropriately responding to feelings and sensations (van der Kolk, 2006). Without access to one's own internal state, there may be increased difficulty in empathizing and emotionally connecting with others as a result (van der Kolk, 2006). Additionally, neuroimaging studies have found that trauma may also induce attention and working memory related issues (Clark et al., 2003).

Complex Trauma Definition

The term complex trauma is used to describe exposure to long-term and/or recurring trauma, typically of an interpersonal nature and often during one's developmental years (Ford & Courtois, 2009). Common examples of this type of trauma include childhood abuse or neglect, as well as family or community violence. Given the extreme nature and critical timing in one's growth, complex trauma can significantly disrupt the healthy development of a sense of self and impair the capacity to trust (Ford & Courtois, 2009). The ability to form trusting relationships is particularly compromised when the individual suffers at the hands of someone in a close

relationship, which is often the case in cases of complex trauma (Ford & Courtois, 2009). The significance of these impairments cannot be understated, as a coherent sense of identity and capacity to connect with others are crucial to one's well-being.

CPTSD Definition

The core presentation of CPTSD is a mix of emotional and somatic dysregulation, dissociation, identity disturbance, and attachment issues (Ford & Courtois, 2009). Research on the impact of early trauma on interpersonal neurobiology has begun to shed some light on the underlying causes of such a complex symptomatology. In instances of complex trauma, regulatory abilities of the right brain involved in attachment are especially impaired (Schore, 2009). These processes are disrupted when early exposure to trauma inhibit the right hemisphere's capacity for nonverbal communications via visual, auditory, and tactile cues—all of which are vital for establishing secure attachment in early childhood (Schore, 2009). The disruption of this neurobiological process early in life is significant because attachment serves as an interpersonal mode of affect regulation throughout the human lifespan (Bradshaw & Schore, 2007).

The right hemisphere also plays a primary role in managing emotional arousal and autonomic response (Schore, 2009; Porges, Doussard-Roosevelt, & Maiti, 1994). However, the ability to regulate autonomic functioning is similarly susceptible to early experiences of survival level threat (Porges et al., 1996). The result of this can be seen in the dysregulation of both the sympathetic and parasympathetic pathways of the autonomic functioning (Cohen et al., 2002). As discussed above, autonomic dysregulation as a result of trauma can hijack behavioral responses (Kozłowska et al., 2015). While a healthy prefrontal cortex is designed to counterbalance automatic responses with conscious behavior, this capacity is also greatly

impaired by early trauma (van der Kolk, 2006). Physiological and neurobiological advancements continue to reveal important insights in understanding the impact of complex trauma.

Impact of Complex Trauma on Mental Health

The long-term impact of early, repetitive, and interpersonal trauma has been linked with a wide range of mental health issues, including anxiety (Heim & Nemeroff, 2001), depression (Hovens et al., 2010), cognitive distortions (Briere & Spinazzola, 2005), personality disorders (McLean and Gallop, 2003), as well as impulsive and self-destructive behavior (e.g., substance use, self-harm, suicide attempts; Briere, Godbout, & Dias, 2015; Ouimette & Brown, 2003). Multiple studies have shown that exposure to early and cumulative trauma is a significant risk factor for PTSD, (Karam et al., 2014; Kilpatrick et al., 2013). One such study from the World Health Organization determined that at four or more exposures to trauma, the individual is prone to a higher severity of PTSD symptoms in terms of onset, duration, intensity, and comorbidity with other psychological disorders (Karam et al., 2014). In comparison to a single experience of trauma, long-term or multiple experiences of trauma increases the risk of PTSD by 11-59% (Copeland, Keeler, Angold, & Costello, 2007).

Diagnostic Status of CPTSD

In the early 1990s, Judith Herman (1992) made the first attempt to diagnostically formalize the complex symptomatology seen in individuals exposed to early and cumulative trauma as CPTSD. In the more than two decades since, multiple attempts have been made to establish such a diagnosis as distinct from PTSD in both the DSM and International Classification of Disease (Courtois, 2008; Resick et al., 2012; Sar, 2011). As of June 2018, CPTSD is now a diagnosis in the International Classification of Disease, Eleventh Revision (ICD-11; World Health Organization, 2018). However, the inclusion of CPTSD in the DSM-5

was rejected in favor of some revision to the PTSD criteria, as well as the addition of both a preschool and dissociative subtype (APA, 2013).

Prevalence of CPTSD

In a 2019 study of the prevalence of CPTSD, an estimated 3.8% of the U.S. population, or 12.4 million individuals, met the ICD-11 diagnostic criteria (Cloitre et al., 2019). This study confirmed that CPTSD presents with more severe symptoms than PTSD, as is expected (Cloitre et al., 2019). The same study also found that women were twice as likely as men to have CPTSD and that gender differences were particularly pronounced in presentation and progression of trauma symptoms (Cloitre et al., 2019). More broadly, an estimated 10 to 14% of children are exposed to early and repetitive trauma (Ford & Courtois, 2009, p. 15). These results indicate that PTSD is a widespread and common issue in the U.S., and possibly globally, which necessitates the development of effective treatment options to combat this problem.

Standard Treatments of CPTSD

Commonly used psychotherapeutic interventions for CPTSD include cognitive behavioral, emotional regulation, dialectical behavioral, and relational approaches (Briere & Scott, 2015). While various cognitive behavioral interventions for PTSD have been empirically substantiated, experts have cautioned about the potential harm of such techniques as a first-line treatment for individuals with CPTSD (Courtois, 2008; Foa, Keane, & Friedman, 2000). Beyond the efficacy of specific interventions, there is consensus regarding a phased and flexible approach to the treatment of CPTSD that combines multiple methods as needed (Cloitre et al., 2011; International Society for the Study of Dissociation, 2005). Presently, there is little to no research on the use of pharmacologic treatments specifically for CPTSD (Briere & Scott, 2015).

Somatic Conceptualization of Trauma

In a push against the mind-body dualism that has long underlain Western thought, there is now substantive literature on the interconnection between sensations, thoughts, and feelings (Cacioppo, Priester, & Berntson, 1993; Chen & Bargh, 1999; Wells & Petty, 1980). Within trauma literature, there is also a movement that presents a somatic view of trauma that endorses the use of body-oriented psychotherapeutic treatments (Caldwell, 1996; Herman, 1992; Ogden, Minton, & Pain, 2006). In instances of trauma, one's lived experience as sensed through the body is significantly impacted. This observation is evidenced in the autonomic dysregulation and reduced capacity to identify internal sensations, both of which are hallmark features of CPTSD (Cohen et al., 2002; Ford & Courtois, 2009). Van der Kolk (2014) proposes that traumatic experiences are chronically lodged in one's body while simultaneously disconnecting the individual from their felt senses. Additionally, literature suggests that traumatic experiences may remain in nonverbal form in the body-mind as a result of the reduced capacity for rationalization and language processing, as discussed earlier (Caldwell, 1996; Hull, 2002; Schore, 2002). While the body is significantly impacted by trauma, it may also play a critical role in the healing process. Somatic psychotherapies, such as DMT, leverage the unique role of the body in trauma treatment by working directly with the mind-body connection (Arendt, 1983; Levy, 1995; Sandel, Chaiklin, & Lohn, 1993).

Dance Movement Therapy

DMT Definitions

DMT is the use of body and movement as a psychotherapeutic modality to support emotional and psychological well-being (American Dance Therapy Association, 2014). In this approach, the body and its movements are the central vehicle for emotional awareness, expression, and processing (Quinten, 2008). Drawing upon the therapeutic value of the mind-

body connection, DMT facilitates change and growth from an embodied and deeply creative orientation (European Association Dance Movement Therapy, 2013; Cozolino, 2010).

Originating in the 1940s, the practice of DMT has grown into an international profession across at least 37 countries (Behrends, Müller, & Dziobek, 2012; Dulicai & Berger, 2005). While the organized discipline of DMT was initially shaped by white European ideas of health, the holistic use of dance and movement in a healing capacity has deep roots across many ancient cultures (Chaiklin, 2009; Chang, 2009). To date, DMT has been used in the treatment of a wide range of mental health issues, including anxiety, depression, attention-deficit/hyperactivity disorder (ADHD), autism, eating disorders, trauma, schizophrenia, Alzheimer's disease, and Parkinson's disease (ADTA, n.d.; Koch et al., 2019).

DMT Principles and Concepts

While DMT interventions can be implemented in countless ways in practice, it is grounded in a set of underlying principles (Acolin, 2016; Bräuninger, 2012; Dibbell-Hope, 2000; Devereaux, 2008). Chiefly, the discipline of DMT is based on the premise that the mind and body are inseparably linked and part of a unified whole (Berrol, 1990; Homann, 2007).

Expanding upon this understanding, DMT asserts that there is a reciprocal relationship between body movement and emotions/thoughts in which each impacts the other (Levy, 2005). Research confirms that movement, posture, and facial expression have been correlated with shifts in affect/emotion (Koch, Kunz, Lykou, & Cruz, 2014) and attitude (Wells & Petty, 1980).

Ultimately, DMT argues that working with the body and its movements directly impact one's mental and emotional health (ADTA, 2014; EADMT, 2013).

From a DMT perspective, body movement is inherently expressive (Acolin, 2016; Tortora, 2005), developmental (Frank & Barre, 2011; Kestenberg & Sossin, 1979), subjective

(Acolin, 2016; Chang, 2009), and integrative (Adler, 1987; Koch & Fischman, 2011). DMT supports the view that movement is a form of nonverbal communication that expresses internal states, such as feelings and attitudes (Acolin, 2016; Bartenieff & Lewis, 1980). In fact, body movement is one of the first and primary ways babies communicate with their caretakers before words become accessible (Frank & Barre, 2011; Tortora, 2005). DMT asserts that movement is developmental, emerging along a normative sequence of fundamental body actions (Acolin, 2016; Frank & Barre, 2011; Tortora, 2005). Practitioners and scholars of DMT have proposed multiple developmental models that identify specific movement patterns in human growth (Bartenieff & Lewis, 1980; Frank & Barre, 2011; Kestenberg & Sossin, 1979; Tortora, 2005). While movement has observable qualities that lend themselves to interpretation through our own embodied knowledge, DMT holds that the meaning of movement is subjective to each individual (Acolin, 2016). This is particularly salient when considering how the personal, cultural, and historical contexts shape each individual's movement (Chang, 2009). Additionally, DMT proposes that body movement serves an integrative function in aligning the emotional, somatic, mental, and social aspects of a person (Adler, 1987; Koch & Fischman, 2011; Pierce, 2014; Sandel, Chaiklin, & Lohn, 1993). One way that DMT facilitates integration is through the use of movement metaphors to enable emotional and psychological processing on a symbolic level (Chaiklin, 2009; Devereaux, 2008; Pierce, 2014). Symbolic processing has been long held by Freud (1965) and Jung (1961) as fundamental to psychotherapy.

To facilitate change and growth, dance movement therapists support the development of body awareness (Hindi, 2012; Rothschild, 2000), kinesthetic attunement (Berrol, 2006; Tortora, 2005), and movement repertoire (Acolin, 2016; Behrends, Müller, & Dziobek, 2012). Body awareness is informed by both interoceptive (i.e., internal sensations) and proprioceptive data

(i.e., body position and movement) (Hindi, 2012). Neuroscience findings have substantiated the therapeutic value of interoception by linking it with one's capacity for emotional and cognitive processing, as well as sense of self (Craig, 2002; Critchley et al., 2004). DMT promotes the development of kinesthetic attunement and empathy via the therapeutic movement relationship (Behrends, Müller, & Dziobek, 2012; Berrol, 2006; Tortora, 2005). These areas of focus are in line with attachment and broader psychodynamic theory that interpersonal attunement and empathy are critical to healthy development and functioning (Flanagan, 2016; Shilkret & Shilkret, 2016). DMT also asserts that expanding one's movement range and repertoire can improve one's psychological/emotional resilience (Acolin, 2016; Behrends, Müller, & Dziobek, 2012). Flexibility in movement is expected to improve capacity for perspective taking, emotional expression, and psychological coping (Acolin, 2016; Behrends, Müller, & Dziobek, 2012).

DMT for Trauma

Since the early works of the field's pioneers, DMT has been used in the treatment of trauma (Arendt, 1983; Levy, 1995; Sandel, Chaiklin, & Lohn, 1993). In the decades since, dance movement therapists have worked with individuals suffering trauma related to domestic violence (Devereaux, 2008), natural disasters (Gray, 2017), war (Harris, 2007; Sandel, Chaiklin, & Lohn, 1993), childhood and adult sexual abuse (Ambra 1995; Frank, 1997; Ho, 2015; Mills & Daniluk, 2002; Weltman, 1986), and torture (Callaghan, 1993). A common theme across DMT intervention addressing trauma is the use of nonverbal techniques, such as body-based mirroring, movement reflection, and kinesthetic empathy (Koch & Harvey, 2012; Weltman, 1986). Foundational DMT concepts, including embodiment (Dieterich-Hartwell, 2017; Koch & Fischman, 2011), body image (Frank, 1997; Weltman, 1986), and body memory (Eberhard-Kaechele, 2012; Mills & Daniluk, 2002), also contribute to the approach to trauma treatment. A

meta-synthesis of nine qualitative studies found that DMT addresses trauma by mending the mind-body connection, making sense and meaning of the traumatic experience, supporting nonverbal expression, cultivating safe and embodied connections, and establishing a healthy relationship to one's body (Levine & Land, 2016). However, despite a long history of dance movement therapists working with trauma, there is little quantitative research supporting the effectiveness of DMT with this population (Levine & Land, 2016; Ho, 2015).

Specific to CPTSD, Pierce (2014) has proposed a three-phase DMT intervention model based on current treatment guidelines for this population. Phase One aims to cultivate an embodied sense of safety by developing regulation skills and secure attachment in the therapeutic relationship (Pierce, 2014). Phase Two focuses on processing and integration of traumatic material through movement, using body-based mindfulness and symbolic expression (Pierce, 2014). Phase Three emphasizes establishing healthy relationships with others by fostering kinesthetic empathy and communal aspects of dance (Pierce, 2014). This intervention model draws upon DMT skills such as selective body-based mirroring and attunement, embodied grounding and orientation, body and movement awareness, somatic co-regulation, modulation of relaxation, sensory stimulation, breathing regulation, and movement free association (Pierce, 2014). While the use of DMT for CPTSD has not yet been validated by empirical data, this phased model is an important first step towards experimental research.

Play

“Play is hope, in process.” – Dr. Jay K. Bishop

Play Definitions

The concept of play has been studied across disciplines for over a century (Bergen, 2015; Burghardt, 2010). Yet, it continues to be a complex phenomenon that is difficult to define

(Bergen, 2015; Burghardt, 2010). However, there is some agreement on several essential characteristics of play as a behavior: (a) it is a volitional and intentional act; (b) it is intrinsically rewarding; (c) it can transcend the confines of reality; (d) it is process-oriented; and (e) it is initiated when the individual is free from survival threat (Burghardt, 2010; Schaefer, 1993). The use of imagination and creativity are central to play's capacity to transcend and, ultimately, transform reality (Brown & Vaughan, 2009; Garvey 1977; Lanyado, 2010; Nachmanovitch, 1990). Relatedly, the concept of playfulness has been conceptualized as a personality trait (Barnett, 2007) and state of mind (Brown & Vaughn, 2009). Perhaps most important within the therapeutic context, play is an opportunity to create meaning (Bishop, 1986).

Play in Human Development and Functioning

While play may be intrinsically rewarding, it also serves important functions throughout the human lifespan (Schoore, 1994). Beginning in the first years of life, the inherent pleasure of play supports neurological development of critical functions such as memory (Sawaguchi & Goldman-Rakic, 1991) and creativity (De Dreu, Baas, & Nijstad 2008). In alignment with attachment theory, the attunement that is established in caregiver-infant play contributes to the capacity for exploration and development of a sense of self (Gordon, 2014; Schoore 1994). Not only are children naturally inclined to play, it is their primary approach to learning about the world (Gordon, 2014). Play also supports children in developing language and social skills, as well as gross and fine motor functions (Smith, 1982).

Beyond early development, play has been associated with a wide range of benefits throughout the human lifespan (Gordon, 2014). Research has shown that playing prepares humans to cooperate with each other (Broadhead, 2004), think and problem solve creatively (Barnett, 1985; Barnett & Kleiber, 1982), communicate nonverbally (Gordon, 2014), regulate

emotionally (Elias & Berk, 2002), and respond to new experiences (Spinka, Newberry, & Bekoff, 2001). Importantly, playfulness has also been linked with lowered susceptibility to stress, as well as improved capacity for coping with stress (Magnuson, 2011). In addition to these adaptive advantages, play can positively impact one's capacity for passion, delight, and liveliness (Marks-Tarlow 2012).

Therapeutic Uses of Play

Within the Western context, play has been used therapeutically since the early days of psychoanalysis with children (Freud, 1909, 1928; Klein, 1932). Play was viewed as an alternative process to free association that is developmentally more appropriate for children (D'Angelo & Koocher, 2011). Play therapy as a distinct modality began to emerge when psychoanalyst Hermine Hug-Hellmuth (1921) created methods specifically for patients who were children. In the past decade, play therapy has been integrated with many theoretical models, including psychoanalytic (Levy, 2011), Jungian (Allan & Levin, 1993), person-centered (Axline, 1947), and cognitive-behavioral theories (Knell, 2011).

While play therapies are generally used with children and adolescents, it has also been applied to adult populations, including those with dissociative identity disorder (Hutchinson, 2002), dementia (Mayers, 2002), and developmental disabilities (Demanchick, Cochran, & Cochran, 2003). In addition to the play therapy approach, play is also used in the treatment of adults via various drama therapies and sandplay (Blatner, 2003; Johnson, et al., 2003; Landy, 2003; Mitchell & Friedman, 2003; Olson-Morrison, 2017; Ward-Wimmer, 2003). For example, Developmental Transformations is a drama therapy that utilizes the context of play (i.e., the playspace) as a therapeutic agent (Johnson, 2013). The playspace is created by the simple but powerful agreement between players that they will engage in make-believe or pretend play

(Johnson, 2013). By entering the playspace, all parties have intentionally stepped into an in-between realm that straddles the real and unreal (Johnson, 2013).

Beyond the aforementioned therapies that explicitly use play as a prominent mechanism of therapeutic action, it is important to consider the role of play as an implicit therapeutic force across psychotherapy approaches (Marks-Tarlow, 2012). In the late twentieth century, Donald Winnicott (1991) proposed that play is fundamental to psychotherapy and intrinsically therapeutic, regardless of the client's age. In particular, Winnicott (1991) argued that creative play is a crucial means by which one can develop an authentic sense of self. In support of this view of play as an implicit therapeutic factor, clinical psychologist Dr. Marks-Tarlow (2014) argues that play can motivate the client to engage in the therapeutic process and lower the barrier to healthy risk-taking, as well as cultivate a sense of openness, creativity, spontaneity, and discovery. These benefits of play in the therapeutic process are supportive to the client's mental health, regardless of the specific psychotherapeutic method (Marks-Tarlow, 2014).

Post-Traumatic Play

The term "post-traumatic play" was first introduced by psychiatrist Lenore Terr (1983) to capture the impacts of trauma on play behaviors in children. Post-traumatic play is portrayed as joyless and repetitive play activity that is driven by traumatic experience (Chazan & Cohen, 2010; Gil, 2017). This phenomenon is further characterized by concrete thinking (Drewes, 2001) and regression to early defense mechanisms (e.g., denial, displacement, and identification) in the player (Terr, 1990). The DSM-5 also recognizes that post-traumatic stress symptoms in children may include play behaviors that involve intrusive memories and dissociative reactions (APA, 2013).

While post-traumatic play can be viewed as a symptom of trauma, it also offers the opportunity to process and gain mastery over the traumatic experience (Nader & Pynoos; 1991). In examining post-traumatic play as both a symptom and potential cure, researchers have differentiated between positive versus negative post-traumatic play (Dripchak, 2007). In positive post-traumatic play, the player is able to resolve the traumatic experience and regain a sense of control through re-enactment (Dripchak, 2007). By contrast, negative post-traumatic play involves repetition of traumatic material that is anxiety provoking and does not provide resolution (Dripchak, 2007). The difference between these two types of post-traumatic play may hold key considerations for the treatment of trauma.

Play in Trauma Treatment

The use of play in trauma treatment can be traced back to the beginnings of play in psychotherapy (Bergen, 2015). For example, Anna Freud (1928) applied play in the therapeutic treatment of children who have experienced traumas, such as parental separation and war. Since then, many clinicians and researchers have continued to develop the use of play therapies for trauma treatment (Gil, 2017; Nader and Pynoos, 1991; Terr, 1983). In working with traumatic content, guiding treatment goals include creating safety, developing self-control, facilitating re-enactment, and supporting resolution through play (Ogawa, 2004).

A recent review identified several play therapies that are most suitable for children who have experienced interpersonal trauma, including trauma-focused integrated play therapy, cognitive-behavioral play therapy, child-centered play therapy, child–parent relationship training, and ecosystemic play therapy (Myers, 2015). Trauma-focused integrated play therapy is a three-phase model that integrates a non-directive approach, attachment principles, and trauma-focused cognitive behavioral therapy (Gil, 2011). In contrast, cognitive-behavioral play therapy

takes a directive approach that offers children more structure in reworking their trauma through play (Bethel, 2007). Child-centered play therapy is built upon Carl Roger's humanistic approach and aims to vitalize the intrinsic creativity of children in healing their trauma (Axline, 1947). Child-parent relationship training, as the name suggests, coaches parents on the skills needed to reestablish a healthy connection with their children through play (Landreth & Bratton, 2006). Finally, ecosystemic play therapy takes a wider view of the systems in which the child experienced the trauma in order to support healthy adaptive strategies (O'Connor, 2007).

The psychotherapeutic use of play with adults, as present in drama therapies and sandplay, has also been applied in trauma treatment (Glass, 2006; Moon, 2006; Sajnani & Johnson, 2014). Beginning in the 1980s, drama therapies have expanded from the arena of personal development to the treatment of trauma in both hospital and community settings (Johnson & Sajnani, 2014). In treating trauma, drama therapies (e.g., Developmental Transformations, psychodrama) offer the vividness of dramatic and embodied re-enactment as it relates to exposure and desensitization (Johnson & Sajnani, 2014). Drama therapies also offer flexibility in navigating cognitive and emotional distance from the traumatic content through use of theatrical tools, such as roleplay (Johnson & Sajnani, 2014; Glass, 2006; Landy, 2009). For example, the protagonist of a psychodrama may embody the mannerisms and actions of another person in the traumatic event (i.e., role reversal), thereby gaining new insight (Landy, 2009). The use of sandplay therapy in treating trauma supports reconnecting the mind and body through tactile exploration, as well as increasing safety via the boundary of the sand tray and nonverbal processing (Zappacosta, 2013). By working with miniature figurines and shaping the sand, the client has the opportunity to engage in sensory-based processing (Zappacosta, 2013). The sand tray also offers physical and metaphorical containment, thereby providing the increased safety

needed to explore traumatic material (Zappacosta, 2013). These implementations of play in therapy provide a solid foundation for the treatment of trauma and set guiding principles for the integration of play into other treatment modalities.

Discussion

While much has been written on complex trauma and its impact on psychological and emotional health, the legitimacy of CPTSD as a formal diagnosis is still being established (Courtois & Ford, 2009; Sar, 2011). Of the ICD-11 and DSM-5, the two main diagnostic systems for mental health in the U.S., only the former recognizes CPTSD as a distinct diagnosis (APA, 2013; WHO, 2018). However, a critical review of the literature suggests that CPTSD warrants further research and treatment support given both its severity and prevalence (Cloitre et al., 2019). In particular, more psychotherapeutic treatment options are needed that address the core issues of CPTSD, including (a) an impaired sense of self-identity, (b) compromised capacity to form stable and fulfilling relationships, and (c) emotional and somatic dysregulation (Ford & Courtois, 2009).

DMT is particularly pertinent as a treatment option for CPTSD, as reflected by a move among researchers and clinicians towards a somatic conceptualization of trauma that asserts the critical role of the body in trauma recovery (Caldwell, 1996; Herman, 1992; Ogden, Minton, & Pain, 2006). The three-phased model proposed by Pierce (2014) is a comprehensive model that integrates the DMT approach with the current treatment guidelines for CPTSD. Broadly, the primary treatment goal of each phase of this model aligns with the three core issues of CPTSD. Phase One focuses on establishing an embodied sense of safety (Pierce, 2014), grounded in emotional and somatic regulation. Phase Two aims to process traumatic experiences (Pierce, 2014), thus supporting the development of an integrated sense of self. Phase Three emphasizes

building healthy relationships (Pierce, 2014), directly addressing relational difficulties central to CPTSD.

Phase One of the Pierce model excels at leveraging the particular strengths of DMT as an embodied modality to treat CPTSD. By working with the body and its movements, DMT is especially applicable to addressing the core issue of emotional and somatic dysregulation. Body- and movement-based interventions (e.g., mirroring, sensory grounding, and progressive relaxation) support the regulatory capacities of the right brain in managing emotional arousal and somatic distress (Pierce, 2014). However, the latter two phases of this model may benefit from further development of DMT interventions. Based on a critical review of the literature on the concept of play, I believe that play can greatly complement DMT in addressing the core issues CPTSD, namely the impaired sense of self-identity and reduced capacity to form stable and fulfilling relationships. In particular, play can be effectively integrated into Pierce's model of DMT for CPTSD, specifically in Phases Two and Three.

Play can enhance DMT interventions in facilitating the development or recreation of self-identity post trauma through its transformative potential. This benefit of play is rooted in its inherent capacity to transcend reality via the use of imagination and creativity (Garvey 1977; Lanyado, 2010; Nachmanovitch, 1990). As discussed in the literature review, the use of imaginative play in this capacity is modeled by the playspace in Developmental Transformations (Johnson, 2013). Through the interpersonal process of play, the therapist and client can enter into a liminal space in which the rigidity of one's narrative is made permeable, and the client can undertake the critical task of recreating themselves (Johnson, 2013). In this way, play can empower complex trauma survivors to free themselves from their traumatic narrative (Johnson, 2013; Lanyado, 2010). Another example of how play facilitates transformation is seen in the discussion

of roleplay in drama therapies (Johnson & Sajnani, 2014; Glass, 2006; Landy, 2009). For example, the role of the archetypal hero, who achieves growth by overcoming difficulty, is particularly conducive to personal transformation (Landy, 2009). Dance movement therapists may facilitate embodied transformation by creating an explicit context of imaginative play and using play-based tools. This application of play can be integrated with Phase Two of the Pierce model for the processing of traumatic content. Phase Two, when combined with play, can support the development of an integrated sense of self in complex trauma survivors through the use of mindfulness and symbolic expression within the playspace (Pierce, 2014). Within the liminal space of imaginative play, the client may draw upon their innate creativity to work through and transform their traumatic experiences.

Play can complement DMT interventions in supporting complex trauma survivors build and navigate interpersonal relationships by promoting an increased capacity to adapt to the unpredictability of life. This benefit of play can be seen in research that links play with improvements in a variety of skills that are applicable to interpersonal relationships, such as cooperation (Broadhead, 2004), creative thinking (Barnett & Kleiber, 1982), and problem solving (Barnett, 1985). Play also prepares an individual to embody openness, flexibility, and responsiveness (Marks-Tarlow, 2014), all of which can support complex trauma survivors in adapting to the uncertainties that inevitably arise in relationships. These skills and qualities are crucial to maintaining a sense of internal equilibrium whilst navigating the complexities of interpersonal challenges (Johnson, 2013). Perhaps most importantly, the ability to take healthy risks is particularly salient to survivors of complex trauma as they engage in the critical process of recovering the capacity to trust human beings (Ford & Courtois, 2009). The spirit of joyful experimentation in play lowers the barrier to healthy risk-taking (Marks-Tarlow, 2014), thus

empowering complex trauma survivors to re-establish relational trust and safety. Dance movement therapists may draw upon these benefits of play by embodying a playful presence and attitude as a model for flexible, creative, and adaptive ways of relating. Phase Three in the Pierce model, which focuses on building healthy relationships, can better address the relational difficulties central to CPTSD through the utilization of play-based methods. New skills needed to navigate interpersonal challenges can be rehearsed by incorporating techniques such as improvisational play (Johnson, 2013), games (Drewes & Schaefer, 2015), and roleplay (Landy, 2009).

Initial recommendations for integrating play with Phases Two and Three of Pierce's model directly address two core issues of CPTSD. In Phase Two, the transformative potential of play may complement DMT interventions in facilitating the development or recreation of self-identity post trauma. In Phase Three, DMT interventions can be improved by the adaptability promoted through play, in addressing the relational difficulties central to CPTSD. Beyond this particular model, I believe the integration of play may enhance the efficacy of DMT as a modality for the treatment of CPTSD.

Considerations For Research

While DMT has been applied to trauma since its emergence as a field, there is still little empirical evidence to support the efficacy of DMT in treating trauma (Arendt, 1983; Levine & Land, 2016; Levy, 1995; Sandel, Chaiklin, & Lohn, 1993). There is even less empirical support for DMT as a treatment option for CPTSD, given the ongoing debate about its status as a distinct diagnosis. Consistent with the general trend in DMT research, most of the existing literature on the application of DMT for trauma is presented in a qualitative fashion, based on interviews or case studies (Levine & Land, 2016; Pierce, 2014). Furthermore, there is no existing research on

the integration of play and DMT for the treatment of CPTSD. Based on the analysis of the multi-faceted ways in which play can contribute to the practice of DMT, further research on this integrated approach as applied to CPTSD is warranted.

The initial recommendations for incorporating play and playfulness within the phased model of DMT for CPTSD can be developed into a manualized intervention that further applies theory to practice. To legitimize this method, standardized interventions are crucial to establishing efficacy through outcome studies. Specifically, research is needed to both qualitatively and quantitatively assess the improvement of CPTSD symptoms as they relate to the core issues around self-identity, relational stability, and emotional and somatic regulation. One proposed study could compare the use of the Pierce model with and without the addition of play-based methods during Phases Two and Three. The results would not only inform on the added benefits of play but also provide a much-needed reference point for the efficacy of Pierce's model alone for treating CPTSD.

Other areas of research include assessing how play-integrated DMT may impact various subpopulations differently within complex trauma survivors. Age, as well as gender and cultural differences regarding perceptions and values of dance, play, and trauma, are also important considerations in the development of this new method. Cultural factors are particularly salient when confronting complex trauma that stems from cultural forces, such as systemic racism.

Conclusion

This thesis endeavored to integrate the concept of play with DMT as it applies to the treatment of CPTSD. Based on a review of existing literature, I explored how play can contribute to DMT interventions for CPTSD by promoting embodied transformation and adaptability. Initial recommendations for how to integrate the therapeutic use of play within a phased model

of DMT for CPTSD were made. While this thesis looked at the intersection of play, DMT, and CPTSD, there are broader implications to consider. The integration of play and DMT can be applied to other populations beyond CPTSD. This may include further exploration of how play-informed DMT can support clinical issues, such as schizophrenia, eating disorders, dementia, and autism. More broadly, the concept of play may be examined as a link between the expressive modalities, including dance, art, music, and drama. The implicit use of play as a therapeutic factor across psychotherapeutic methods may also be further clarified and expanded upon, in theory and practice. Play and playfulness have been a personal source of freedom and joy that continue to nourish me as a therapist-in-training and as a human being. I believe that the ultimate goal of psychotherapy is not just the reduction of symptoms, but the capacity to be playfully responsive, flexible, open, spontaneous, and creative in life. Thus, the integration of play with DMT deserves greater attention in the mental health field.

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THESIS APPROVAL FORM

**Lesley University
Graduate School of Arts & Social Sciences
Expressive Therapies Division
Master of Arts in Clinical Mental Health Counseling: Dance/Movement Therapy, MA**

Student's Name: _____ **Kaiyue Chen**_____

Type of Project: Thesis

Title: __ Embodied Transformation: A Review of Play and Dance Movement Therapy for
Complex Post-Traumatic Stress Disorder

Date of Graduation: _____ **May 5, 2020**_____

In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

Thesis Advisor:_____ **Dr Tamar Hadar, MT-BC**_____